



# València

Advancing Resilience of Historic areas against Climate-related and other Hazards



## PROJECT AREA

# València, Huerta and Albufera

The City of València will focus its involvement with ARCH on its socio-ecological heritage, mainly in the Huerta and Albufera. These are two agrarian cultural landscapes linked by a historical hydrological infrastructure, recognized on the register of Globally Important Agricultural Heritage Systems (GIAHS) managed by the FAO. The Huerta and the Albufera are key elements in the city's green and blue infrastructure.

## València

The València metropolitan area has more than one and a half million inhabitants, including both the city of València and the adjoining municipalities.

## The Huerta

Almost 20,000 hectares of agricultural land, distributed across València and other 39 municipalities.

## The Albufera

Wetland of International Importance with multiple protected area designations. 21,000 hectares spread over València and 12 other municipalities.



ABOUT ARCH

## Advancing Resilience of historic areas against Climate-related and other Hazards

The impacts of climate change are global in scope and unprecedented in scale. Cities will face frequent extreme events in future and the risk to their historic urban and rural districts from climate change will also increase. ARCH is a European-funded research project that aims to better preserve areas of cultural and historic value from hazards and risks. The ARCH team, with the cities of Bratislava, Camerino, Hamburg and Valencia, co-creates tools that will help cities save historic areas from the effects of climate change.

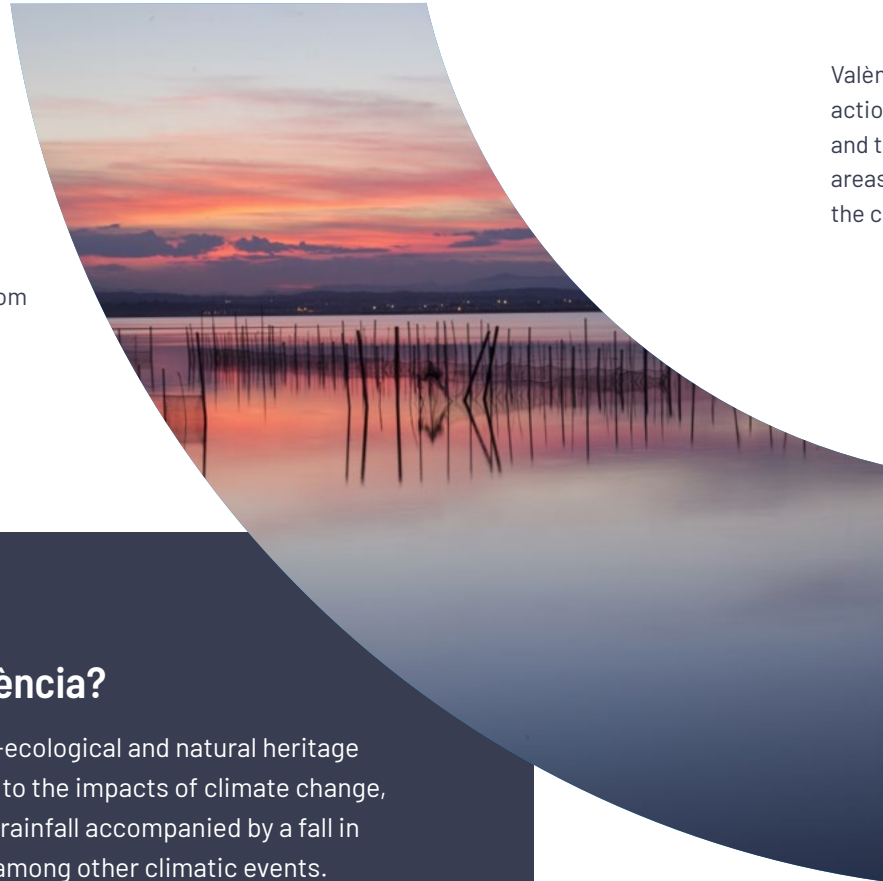
### How does climate change affect València?

The architectural, archaeological, monumental, socio-ecological and natural heritage of València is very rich and diverse, but it is at risk due to the impacts of climate change, especially the increase in temperatures and torrential rainfall accompanied by a fall in average annual rainfall, heat waves and sea level rise, among other climatic events.

## How does ARCH make València more resilient?

València's involvement with ARCH is organised around two complementary lines of action. Firstly, local actions aim to contribute to a better understanding of the impacts of climate change in the Huerta and the Albufera, in efforts of supporting the development of resilience strategies for both historic areas. Secondly, the project aims to acknowledge and explore how the Huerta and the Albufera help the city to cope with a changing climate.

**ARCH plans to better understand the impacts of climate change in the Huerta and Albufera and generate a scientific basis for the design of resilience strategies.**



## Project Work

### Assessing Climate Change Impacts

According to climate models, the Huerta and Albufera will become warmer, while at the same time, water availability will decrease. Sea level rise is an additional, critical threat from a longer-term perspective. ARCH is working to better understand the impacts of different possible climate change scenarios on agricultural and natural ecosystems by means of “translating” changes in the climate into changes in the environment, e.g. through the calculation of agroclimatic and bioclimatic indicators.

### Design of Resilience Strategies

We define the resilience of a historic area as its “sustained ability to cope with hazardous events by responding and adapting in socially just ways that maintain the historic area’s functions and heritage significance.” Through ARCH, València is identifying specific measures that can contribute to building up the resilience of its agricultural heritage against climate-related hazard.

### Thermal Modelling

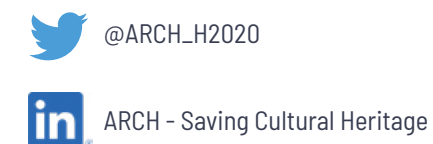
Temperature rise due to climate change does not affect the whole Valencia municipality equally. The city gets warmer than the surrounding environment, especially at night, due to the so-called “urban heat island” effect. Through ARCH, València is analysing the cooling effect of the Huerta and the Albufera on the temperatures in the rest of the city.

### Awareness-raising Campaign

The climate in València, as well as the Huerta and the Albufera has already changed, and will continue to do so even more in the future. The city must start adjusting to those changes and their effects to lessen or avoid harm, or even exploit potential beneficial opportunities, as suggested by the Intergovernmental Panel on Climate Change (IPCC). In ARCH, in addition to generating useful information for decision-making, València aims to raise awareness of the need to adapt, so that everyone can continue to enjoy the numerous benefits of the Huerta and the Albufera for a long time.



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